

## CLAIMS:

1. A method for treating a condition characterized by the presence of abnormal cells in a person, said method comprising the step of irradiating said abnormal cells and/or nearby tissue of the person with UVA radiation (from part or all of the 320-500 nm range, preferably from part or all of the 320-400 nm range) at a tissue surface dose in the range 1 to 15 J/cm<sup>2</sup> within a 2-hour period wherein the condition is selected from the group consisting of a neoplastic condition, a proliferative condition, a precancerous lesion, a condition treated by an interferon or a compound or procedure that induces an interferon, and a virus-caused condition.
2. The method of Claim 1 wherein the condition is a neoplastic condition.
3. The method of Claim 2 wherein the neoplastic condition is selected from the group consisting of a skin cancer, a cancer of a mucous surface, a cancer of an epithelial surface, a melanoma, a basal cell cancer, a squamous cell cancer, a Kaposi's sarcoma, and an adenocarcinoma.
4. The method of Claim 1 wherein the condition is a proliferative condition.
5. The method of Claim 4 wherein the proliferative conditions is selected from the group consisting of a keloid, an actinic keratosis, a polyp, a hemangioma, and a condition treated by an interferon or a compound or procedure that induces an interferon.
6. The method of Claim 1 wherein the condition is a precancerous lesion.

7. The method of Claim 6 wherein the precancerous lesion is selected from the group consisting of an actinic keratosis, a polyp, a condition treated by an interferon or a compound or procedure that induces an interferon, and a viral infection.

8. The method of Claim 1 wherein the condition is a virus-caused condition.

9. The method of Claim 8 wherein the virus-caused condition is selected from the group consisting of a wart, molluscum contagiosum, Kaposi's sarcoma, herpes simplex, herpes zoster, and a condition caused by an interferon or a compound or procedure that induces interferon.

10. The method of Claim 9 wherein the virus-caused condition is a wart.

11. A method for treating an infectious condition in a person, said method comprising the step of irradiating tissue of that person with UVA irradiation at a tissue surface dose in the range 1 to 15 J/cm<sup>2</sup> within a 2-hour period, wherein infecting and/or infected cells are in the tissue.

12. The method of Claim 11 wherein the infectious condition is selected from the group consisting of leishmaniasis, a parasitic infection, an infection by an intracellular organism, a fungal infection, a granulomatous disease, herpes infection, a papilloma virus infection, a wart, a cytomegalovirus infection, a mycobacterial infection, an atypical mycobacterial infection, an MAI infection, a bacterial infection, a viral infection, a slow viral

infection, a prion infection, a spirochete infection, Lyme disease, an HIV-related infection, a Kaposi's sarcoma, and an infection treated by an interferon or a compound or procedure that induces an interferon.

13. The method of Claim 11 wherein the infectious condition is selected from the group consisting of a cutaneous infection, an infection of a mucous membrane, a genital infection, a genitourinary infection, an oral infection, an infection involving an epithelial surface, a nasal infection, a cervical infection, and a penile infection.

14. A method of treating an inflammatory condition, said method comprising the step of irradiating such tissue of the person with UVA radiation at a tissue surface dose in the range 1 to 15 J/cm<sup>2</sup> within a 24-hour period.

15. The method of claim 14 wherein the condition is selected from the group consisting of psoriasis, eczema, an atopic condition, and an inflammatory bowel disease.

16. A method for treating a vascular condition, said method comprising the step of irradiating vascular tissue of the person with UVA radiation at a vascular tissue surface dose in the range 1 to 15 J/cm<sup>2</sup> within a 2-hour period.

17. The method of Claim 16 wherein the vascular condition is selected from the group consisting of a hemangioma and a vascular condition associated with HIV infection.

18. The method of claim 1 wherein the condition is a condition treated by an

interferon or a compound or procedure that induces an interferon.

19. The method of Claim 18 wherein the condition treated by an interferon or a compound or procedure that induces an interferon is selected from the group consisting of a wart, a keloid, a skin cancer, an actinic keratosis, a lymphoma, a cutaneous lymphoma, a hemangioma, a Kaposi' sarcoma, and hepatitis.

20 A method of any one of claims 1 through 19 inclusive wherein the UVA radiation is UVA1 radiation (from part or all of the 340-400 nm range).

21. A device or system for regulating UVA radiation to a tissue said device or system comprising

(a) a source of UVA light; and

(b) a UVA detector;

wherein the input to said regulatory comprises a preset desired UVA dose/cm<sup>2</sup> and/or a preset desired UVA dose/cm<sup>2</sup>/time; and

wherein the output from said regulatory means is transmitted to the source of UVA light so as to achieve the desired UVA dose/cm<sup>2</sup> and/or a preset desired UVA dose/cm<sup>2</sup>/time.

22. A device or system of Claim 21, said system further comprising a component selected from the group consisting of a UVA detector and a UVA conveyance.

23. A device or system of claim 22 wherein the device permits the source of UVA

light to be alternately be directed at the UVA detector and a target area in or on a person.

24. The device or system of claims 21 and/or 22 wherein said regulatory means incorporates a computer chip.

25. The device or system of Claims 21 and/or 22 wherein the source and/or conveyance of UV light is adapted for insertion into an internal mucosal lined-cavity, the cross-sectional diameter of said source and/or conveyance being less than 5 cm.

26. The device or system of Claim 25 wherein the source and/or conveyance of UV light is cylindrical in shape.

27. The device or system of Claims 21 and/or 22 wherein the source and/or conveyance of UV light is adapted for insertion into an internal mucosal lined-cavity, the cross-sectional diameter (or major diameter if not circular in cross-section) of said source and/or conveyance being less than 30 mm.

28. The device or system of Claim 27 wherein the source and/or conveyance of UV light is cylindrical in shape.

29. The device or system of Claims 21 and/or 22 wherein the UV source and/or conveyance is disposed within a cylindrical shell, said shell comprising an aperture (air or UV-transmitting quartz, plastic, glass, or other UV-transmitting material) that permits UV light to be transmitted from the source and/or conveyance to outside the shell.

30. A device or system of Claims 21 and/or 22 wherein the preset desired UVA dose/cm<sup>2</sup> is the dose within a distance of not more than 60 cm from an outer surface of the UVA source and is in the range 1 to 15 J/cm<sup>2</sup>.

31. A device or system of Claim 29 wherein the preset desired UVA dose/cm<sup>2</sup> is the dose within a distance of not more than 60 cm from the aperture in the shell and is in the range 1 to 15 J/cm<sup>2</sup>.

32. A device or system of Claim 21 and/or 22 wherein the source of UVA light delivers light in the range from part or all of the 320-500 nm range.

33. A device or system of Claim 21, and/or 22 wherein the source of UVA light delivers UVA1 light in the range from part or all of the 340-400 nm range.

34. A device or system of Claims 21 and/or 22 wherein the source and/or conveyance of UVA light is disposed so that the irradiated tissue is selected from the group consisting of neoplastic tissue, proliferative tissue, precancerous tissue, tissue with a condition that can be treated with an interferon or a compound or procedure that induces an interferon, tissue with a condition that can be treated with an interferon- $\gamma$  or a compound or procedure that induces an interferon- $\gamma$ , tissue with a condition that can be treated with an IL-12 or a compound or procedure that induces IL-12, tissue with a condition that can be treated with a shift from TH-2 to TH-1, tissue with a condition that can be treated with suppression of TNF $\alpha$  secretion, and tissue containing a virus or viral genetic material.

35. A device or system of Claims 21 and/or 22 wherein the source of UVA light is disposed so that the irradiated tissue is a wart.

36. A device or system of Claims 25 and/or 27, wherein the desired UVA dose/cm<sup>2</sup> is the dose within a distance of not more than 4 cm from an outer surface of the UVA source and is in the range 1 to 15 J/cm<sup>2</sup>.

37. A device or system of Claim 21 and/or 22 wherein the source of UVA light delivers light in the range from part or all of the 320-400 nm range.